

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 08/466,38/C  
Source: IFW 16  
Date Processed by STIC: 11/8/04

***ENTERED***



IFW16

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004

TIME: 16:21:47

Input Set : A:\41426-C.txt  
 Output Set: N:\CRF4\11082004\H466381C.raw

3 <110> APPLICANT: Israeli, Ron S.  
 4 Heston, Warren D.W.  
 5 Fair, William R.  
 7 <120> TITLE OF INVENTION: PROSTATE-SPECIFIC MEMBRANE ANTIGEN  
 9 <130> FILE REFERENCE: 1769/41426-C/JPW/CY  
 11 <140> CURRENT APPLICATION NUMBER: US 08/466,381C  
 12 <141> CURRENT FILING DATE: 1995-06-06  
 14 <150> PRIOR APPLICATION NUMBER: US 08/403,803  
 15 <151> PRIOR FILING DATE: 1995-03-17  
 17 <150> PRIOR APPLICATION NUMBER: PCT/US93/10624  
 18 <151> PRIOR FILING DATE: 1993-11-05  
 20 <150> PRIOR APPLICATION NUMBER: US 07/973,337  
 21 <151> PRIOR FILING DATE: 1992-11-05  
 23 <160> NUMBER OF SEQ ID NOS: 38  
 25 <170> SOFTWARE: PatentIn version 3.1  
 27 <210> SEQ ID NO: 1  
 28 <211> LENGTH: 2653  
 29 <212> TYPE: DNA  
 30 <213> ORGANISM: Human  
 32 <400> SEQUENCE: 1

33 ctcaaaagg gccggatttc cttctctgg aggcagatgt tgcctctc tctcgctgg 60  
 35 attggttcag tgcactctag aaacactgtc gtgggtggaga aactggaccc caggtctgg 120  
 37 gcgaaattcca gcctgcagg ctgataaqcg aggcattagt gagattgaga gagactttac 180  
 39 cccggcgtgg tgggtggagg gcgcgca gacggcaggc acaggcgccggtccggag 240  
 41 cccggctctg ctgcgcgcg gatgtggaaat ctccttcacg aaaccgactc ggctgtggcc 300  
 43 accgcgcgccc gcccgcgtg gctgtgcgtt ggggcgtgg tgctggcggtggctttt 360  
 45 ctccctcggtt tcctttcgg gtggttata aaatcctcca atgaagctac taacattact 420  
 47 ccaaagcata atatgaaagc atttttggat gaattgaaag ctgagaacat caagaagttc 480  
 49 ttatataattt tacacatgat accacattta gcaggaacag aacaaaactt tcagcttgca 540  
 51 aagcaaattt aatcccagtg gaaagaattt ggctggatt ctgttgagct agcacattat 600  
 53 gatgtccatgt tgccttaccc aaataagact catcccaact acatctcaat aattaatgaa 660  
 55 gatggaaatg agattttcaa cacatcatta tttgaaccac ctccctccagg atatgaaaat 720  
 57 gtttcggata ttgtaccacc tttcagtgct ttctctcctc aaggaatgcc agagggcgat 780  
 59 ctatgtatg ttaactatgc acgaaactgaa gacttctta aattgaaacg ggacatgaaa 840  
 61 atcaattgtc ctggggaaat tgcataattgcc agatgtggaa aagtttcag agaaataag 900  
 63 gttaaaaatg cccagctggc agggggccaaa ggagtcatc tctactccga cctgctgac 960  
 65 tactttgttc ctgggggtgaa gtcctatcca gatgggtggaa atcttcctgg agttgggtgtc 1020  
 67 cagcgtggaa atatcctaaa tctgaatggt gcaggagacc ctctcacacc agtttacca 1080  
 69 gcaaatgaaat atgctttagt ggcgtggaaatt gcagaggctg ttggcttcc aagtattcct 1140  
 71 gttcatccaa ttggatacta tgcacatgaaatggg tggctcagca 1200  
 73 ccaccagata gcagctggag aggaagtctc aaagtgcctt acaatgtgg acctggcttt 1260  
 75 actggaaact ttcttacaca aaaagtcaag atgcacatcc actctaccaa tgaagtgaca 1320  
 77 agaatttaca atgtgatagg tactctcaga ggagcagtgg aaccagacag atatgtcatt 1380

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004  
TIME: 16:21:47

Input Set : A:\41426-C.txt  
Output Set: N:\CRF4\11082004\H466381C.raw

79	ctgggaggtc	accgggactc	atgggtgtt	ggtgttattg	accctcagag	tggagcagct	1440										
81	gttggcatg	aaattgtgag	gagcttgaa	acactqaaaa	aggaagggtg	gagacacatgaa	1500										
83	agaacaattt	tgtttgcaag	ctgggatgca	gaagaatttgc	gtcttcttgg	ttctactgag	1560										
85	tgggcagagg	agaattcaag	actcctcaa	gagcgtggcg	tggcttataat	taatgctgac	1620										
87	tcatctatag	aaggaaacta	cactctgaga	gttgattgt	caccgctgtat	gtacagcttgc	1680										
89	gtacacaacc	taacaaaaga	gctgaaaaggc	cctgatgaag	gctttgaagg	caaatactcttgc	1740										
91	tatgaaaagtt	ggactaaaaa	aagtccctcc	ccagagttca	gtggcatgcc	caggataaggc	1800										
93	aaattggat	ctggaaatga	tttgagggtg	ttttccaaac	gacttggaaat	tgcttcaggc	1860										
95	agagcacgg	atactaaaaa	ttgggaaaca	aacaaattca	gcggctatcc	actgtatcac	1920										
97	agtgtctatg	aaacatatga	gttggtgaa	aagttttatg	atccaatgtt	taaatatcac	1980										
99	ctcaactgtgg	cccagggttcg	aggaggatg	gtgtttagc	tagccaattc	catactgtctc	2040										
101	ccttttgatt	gtcgagattt	tgctgtatgtt	ttaagaaagt	atgctgacaa	aatctacagt	2100										
103	atttctatga	aacatccaca	ggaaatgaag	acatacagtgc	tatcatttga	ttcacttttgc	2160										
105	tctgcagtaa	agaattttac	agaaattgtct	tccaaatgtca	gtgagagact	ccaggacttgc	2220										
107	gacaaaagca	acccaatagt	attaagaatg	atgaatgatc	aactcatgtt	tctggaaaga	2280										
109	gcatttatttgc	atccatttgc	gttaccagac	aggccttttgc	ataggcatgt	catctatgtct	2340										
111	ccaagcagcc	acaacaagta	tgcagggag	tcattccag	gaatttatga	tgctctgtttgc	2400										
113	gatattgaaa	gcaaaagtgg	cccttccaa	gcctggggag	aagtgaagag	acagatttatgc	2460										
115	gttgcagct	tcacagtgc	ggcagctgc	gagacttgc	gtgaagtagc	ctaagaggat	2520										
117	tcttttagaga	atccgtatttgc	aatttgc	gtatgtact	cagaagaat	cgtaatgggt	2580										
119	atattgataa	atttaaaat	tggtatatttgc	gaaataaagt	tgaatattat	atataaaaaaa	2640										
121	aaaaaaaaaaa	aaa					2653										
124	<210>	SEQ ID NO:	2														
125	<211>	LENGTH:	750														
126	<212>	TYPE:	PRT														
127	<213>	ORGANISM:	Human														
129	<400>	SEQUENCE:	2														
131	Met	Trp	Asn	Ile	Leu	His	Glu	Thr	Asp	Ser	Ala	Val	Ala	Thr	Ala	Arg	
132	1				5			10						15			
135	Arg	Pro	Arg	Trp	Leu	Cys	Ala	Gly	Ala	Leu	Val	Leu	Ala	Gly	Gly	Phe	
136					20			25						30			
139	Phe	Leu	Leu	Gly	Phe	Leu	Phe	Gly	Trp	Phe	Ile	Lys	Ser	Ser	Asn	Glu	
140					35			40						45			
143	Ala	Thr	Asn	Ile	Thr	Pro	Lys	His	Asn	Met	Lys	Ala	Phe	Leu	Asp	Glu	
144					50			55						60			
147	Leu	Lys	Ala	Glu	Asn	Ile	Lys	Lys	Phe	Leu	Tyr	Asn	Phe	Thr	Gln	Ile	
148					65			70			75			80			
151	Pro	His	Leu	Ala	Gly	Thr	Glu	Gln	Asn	Phe	Gln	Leu	Ala	Lys	Gln	Ile	
152					85			90			95						
155	Gln	Ser	Gln	Trp	Lys	Glu	Phe	Gly	Leu	Asp	Ser	Val	Glu	Leu	Ala	His	
156					100			105			110						
159	Tyr	Asp	Val	Leu	Leu	Ser	Tyr	Pro	Asn	Lys	Thr	His	Pro	Asn	Tyr	Ile	
160					115			120			125			130			
163	Ser	Ile	Ile	Asn	Glu	Asp	Gly	Asn	Glu	Ile	Phe	Asn	Thr	Ser	Leu	Phe	
164					130			135			140						
167	Glu	Pro	Pro	Pro	Pro	Gly	Tyr	Glu	Asn	Val	Ser	Asp	Ile	Val	Pro	Pro	
168					145			150			155			160			
171	Phe	Ser	Ala	Phe	Ser	Pro	Gln	Gly	Met	Pro	Glu	Gly	Asp	Leu	Val	Tyr	
172					165			170			175						

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004

TIME: 16:21:47

Input Set : A:\41426-C.txt

Output Set: N:\CRF4\11082004\H466381C.raw

175 Val Asn Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met  
 176 180 185 190  
 179 Lys Ile Asn Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val  
 180 195 200 205  
 183 Phe Arg Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly  
 184 210 215 220  
 187 Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys  
 188 225 230 235 240  
 191 Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Val Gln Arg Gly  
 192 245 250 255  
 195 Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro Gly Tyr  
 196 260 265 270  
 199 Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly  
 200 275 280 285  
 203 Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys  
 204 290 295 300  
 207 Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro Asp Ser Ser Trp Arg  
 208 305 310 315 320  
 211 Gly Ser Leu Lys Val Pro Tyr Asn Val Gly Pro Gly Phe Thr Gly Asn  
 212 325 330 335  
 215 Phe Ser Thr Gln Lys Val Lys Met His Ile His Ser Thr Asn Glu Val  
 216 340 345 350  
 219 Thr Arg Ile Tyr Asn Val Ile Gly Thr Leu Arg Gly Ala Val Glu Pro  
 220 355 360 365  
 223 Asp Arg Tyr Val Ile Leu Gly Gly His Arg Asp Ser Trp Val Phe Gly  
 224 370 375 380  
 227 Gly Ile Asp Pro Gln Ser Gly Ala Ala Val Val His Glu Ile Val Arg  
 228 385 390 395 400  
 231 Ser Phe Gly Thr Leu Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile  
 232 405 410 415  
 235 Leu Phe Ala Ser Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr  
 236 420 425 430  
 239 Glu Trp Ala Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala  
 240 435 440 445  
 243 Tyr Ile Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val  
 244 450 455 460  
 247 Asp Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu  
 248 465 470 475 480  
 251 Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu Ser  
 252 485 490 495  
 255 Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro Arg Ile  
 256 500 505 510  
 259 Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe Gln Arg Leu  
 260 515 520 525  
 263 Lys Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn Trp Glu Thr Asn  
 264 530 535 540  
 267 Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val Tyr Glu Thr Tyr Glu  
 268 545 550 555 560  
 271 Leu Val Glu Lys Phe Tyr Asp Pro Met Phe Lys Tyr His Leu Thr Val

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004  
TIME: 16:21:47

Input Set : A:\41426-C.txt  
Output Set: N:\CRF4\11082004\H466381C.raw

272	565	570	575	
275	Ala Gln Val Arg Gly Gly Met Val Phe Glu Leu Ala Asn Ser Ile Val			
276	580	585	590	
279	Leu Pro Phe Asp Cys Arg Asp Tyr Ala Val Val Leu Arg Lys Tyr Ala			
280	595	600	605	
283	Asp Lys Ile Tyr Ser Ile Ser Met Lys His Pro Gln Glu Met Lys Thr			
284	610	615	620	
287	Tyr Ser Val Ser Phe Asp Ser Leu Phe Ser Ala Val Lys Asn Phe Thr			
288	625	630	635	640
291	Glu Ile Ala Ser Lys Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser			
292	645	650	655	
295	Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu			
296	660	665	670	
299	Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg			
300	675	680	685	
303	His Val Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser			
304	690	695	700	
307	Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp			
308	705	710	715	720
311	Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala Ala			
312	725	730	735	
315	Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala			
316	740	745	750	
319	<210> SEQ ID NO: 3			
320	<211> LENGTH: 8			
321	<212> TYPE: PRT			
322	<213> ORGANISM: Human			
324	<400> SEQUENCE: 3			
326	Ser Leu Tyr Glu Ser Trp Thr Lys			
327	1	5		
330	<210> SEQ ID NO: 4			
331	<211> LENGTH: 15			
332	<212> TYPE: PRT			
333	<213> ORGANISM: Human			
335	<220> FEATURE:			
336	<221> NAME/KEY: MISC_FEATURE			
337	<222> LOCATION: (6)...(7)			
338	<223> OTHER INFORMATION: Xaa=unknown			
341	<400> SEQUENCE: 4			
W-->	343 Ser Tyr Pro Asp Gly Xaa Xaa Leu Pro Gly Gly Gly Val Gln Arg			
344	1	5	10	15
347	<210> SEQ ID NO: 5			
348	<211> LENGTH: 7			
349	<212> TYPE: PRT			
350	<213> ORGANISM: Human			
352	<400> SEQUENCE: 5			
354	Phe Tyr Asp Pro Met Phe Lys			
355	1	5		
358	<210> SEQ ID NO: 6			

RAW SEQUENCE LISTING DATE: 11/08/2004  
 PATENT APPLICATION: US/08/466,381C TIME: 16:21:47

Input Set : A:\41426-C.txt  
 Output Set: N:\CRF4\11082004\H466381C.raw

359 <211> LENGTH: 9  
 360 <212> TYPE: PRT  
 361 <213> ORGANISM: Human  
 363 <400> SEQUENCE: 6  
 365 Ile Tyr Asn Val Ile Gly Thr Leu Lys  
 366 1 5  
 369 <210> SEQ ID NO: 7  
 370 <211> LENGTH: 22  
 371 <212> TYPE: PRT  
 372 <213> ORGANISM: Human  
 374 <220> FEATURE:  
 375 <221> NAME/KEY: MISC\_FEATURE  
 376 <222> LOCATION: (4)..(5)  
 377 <223> OTHER INFORMATION: Xaa=unknown  
 380 <400> SEQUENCE: 7  
 W--> 382 Phe Leu Tyr Xaa Xaa Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln  
 383 1 5 10 15  
 386 Asn Phe Gln Leu Ala Lys  
 387 20  
 390 <210> SEQ ID NO: 8  
 391 <211> LENGTH: 17  
 392 <212> TYPE: PRT  
 393 <213> ORGANISM: Human  
 395 <400> SEQUENCE: 8  
 397 Gly Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Asp Val  
 398 1 5 10 15  
 401 Lys  
 405 <210> SEQ ID NO: 9  
 406 <211> LENGTH: 17  
 407 <212> TYPE: PRT  
 408 <213> ORGANISM: Human  
 410 <400> SEQUENCE: 9  
 412 Pro Val Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val  
 413 1 5 10 15  
 416 Lys  
 420 <210> SEQ ID NO: 10  
 421 <211> LENGTH: 15  
 422 <212> TYPE: PRT  
 423 <213> ORGANISM: Human  
 425 <400> SEQUENCE: 10  
 427 Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg  
 428 1 5 10 15  
 431 <210> SEQ ID NO: 11  
 432 <211> LENGTH: 19  
 433 <212> TYPE: PRT  
 434 <213> ORGANISM: Human  
 436 <400> SEQUENCE: 11  
 438 Tyr Ala Gly Glu Ser Phe Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile  
 439 1 5 10 15

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004  
TIME: 16:21:48

Input Set : A:\41426-C.txt  
Output Set: N:\CRF4\11082004\H466381C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 6,7  
Seq#:7; Xaa Pos. 4,5  
Seq#:12; Xaa Pos. 14,15  
Seq#:13; N Pos. 12  
Seq#:14; N Pos. 6  
Seq#:15; N Pos. 12  
Seq#:16; N Pos. 6  
Seq#:17; N Pos. 3,6  
Seq#:18; N Pos. 11,15  
Seq#:19; N Pos. 3  
Seq#:20; N Pos. 18  
Seq#:23; N Pos. 9  
Seq#:24; N Pos. 12  
Seq#:25; N Pos. 9  
Seq#:26; N Pos. 9  
Seq#:27; N Pos. 82,83,84,193,196,197,217,218,219,232,233,237,238,253,254  
Seq#:27; N Pos. 255,256,263,600,601,721,722,723,724  
Seq#:28; N Pos. 224,255,412,413,414,433,520,521,536,537,538,539,540,541,542  
Seq#:28; N Pos. 543  
Seq#:29; N Pos. 214,377

VERIFICATION SUMMARY  
PATENT APPLICATION: US/08/466,381C

DATE: 11/08/2004  
TIME: 16:21:48

Input Set : A:\41426-C.txt  
Output Set: N:\CRF4\11082004\H466381C.raw

L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:536 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
L:680 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0  
L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0  
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0  
L:787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:60  
L:791 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:180  
L:793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:240  
L:803 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:540  
L:805 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:600  
L:809 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:720  
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:180  
L:868 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:240  
L:872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:360  
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:420  
L:876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:480  
L:878 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:540  
L:907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:180  
L:913 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:360